

GENESYS

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Genesys Info Mart Physical Data Model for a Microsoft SQL Server Database

Reference Manual Supplement

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This page supplements the *Genesys Info Mart 8.1 Microsoft SQL Server Reference Manual* and the New in Release 8.5.0 page in the *Deployment Guide*, to provide information about schema-related changes introduced in releases 8.5.001, 8.5.002, 8.5.003, 8.5.004, and 8.5.005 of Genesys Info Mart, or since the initial 8.1.4 release.

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New in Release 8.5.0

This section highlights new or changed functionality that was introduced in Genesys Info Mart release 8.5.0.

New in Release 8.5.005

• Genesys Info Mart now supports reporting on Genesys Callback activity on voice, web, or mobile channels, in deployments with Genesys Mobile Services (GMS). Genesys Info Mart support for Genesys Callback reporting is provided out-of-box.

Callback applications provide Callback-related data that Genesys Info Mart processes and stores in dedicated tables, which were initially introduced in an earlier Genesys Info Mart release:

- CALLBACK FACT
- CALLBACK_DIM_1
- CALLBACK_DIM_2
- CALLBACK_DIM_3

Additionally, new values have been added to the following columns in conjunction with Callback support implementation:

- OUTBOUNDCALLBACK in the INTERACTION_TYPE.INTERACTION_SUBTYPE column
- DEFERRED and INCOMPLETE in the TECHNICAL_DESCRIPTOR.TECHNICAL_RESULT column
- CALLBACKACCEPTED in the TECHNICAL DESCRIPTOR.RESULT REASON column

Genesys Callback reporting requires Interaction Concentrator 8.1.500.04 or higher and GMS 8.5.102.11 or higher, with Genesys Callback properly configured. For links to more information about configuring GMS, ICON, and other components to support Genesys Callback reporting, see the *Genesys Info Mart Deployment Guide*.

New in Release 8.5.004

- Genesys Info Mart now supports reporting on how much time a particular interaction was in focus (that
 is, actively being processed) on the agent desktop. Two new columns, FOCUS_TIME_COUNT and
 FOCUS_TIME_DURATION in the INTERACTION_RESOURCE_FACT (IRF) table, store focus time data. This
 functionality requires Workspace Desktop Edition (WDE) release 8.5.112.08 or higher and Interaction
 Concentrator release 8.1.507.06 or higher.
- Genesys Info Mart now stores data that enables you to determine who ended a chat session. If a customer leaves the chat session before the agent, a new flag, called CUSTOMER_LEFT_FIRST, is added to the ANCHOR_FLAGS dimension and is set in the IRF.ANCHOR_FLAGS_KEY field. For conference calls, the flag is set for each IRF record that is active when the customer left the chat session. The time when the customer left the chat, or the time when the agent stopped the chat session is stored in the IRF.IRF_ANCHOR_TS column. (IRF_ANCHOR_TS is the new name for the column that was called IRF_ANCHOR_SENT_TS in release 8.5.003 and IRF_ANCHOR_DATE_TIME_KEY prior to that.) The IRF_ANCHOR_TS column is populated in each IRF record that is active when the customer leaves the chat session. To support this functionality, Interaction Concentrator release 8.1.507.06 or higher is required.
- In Outbound VoIP environments, with Outbound Contact campaigns running in an Active Switching Matrix (ASM) dialing mode, the time that the engaged agent is waiting to be connected to the customer

(ASM engage duration) is now reported separately from regular talk time, if so configured. Two new columns, ASM_COUNT and ASM_ENGAGE_DURATION in the IRF table, are populated based on the setting for the new configuration option, *No results*. (The default option value is false.) Genesys Info Mart requires that OCS attaches a special KVP, GSW_CALL_TYPE="ENGAGING", to identify engaging calls.

- To improve processing of user data that is attached during mediation, a new column, USERDATA_FLAG, has been added to the MEDIATION_SEGMENT_FACT (MSF) table. This flag facilitates an unambiguous join between the MSF and fact extension tables to retrieve correct user data that is attached during mediation.
- The field IRF.LAST_INTERACTION_RESOURCE is now supported for all media types. Release 8.5.003 supported this field only for voice interactions. Prior to release 8.5.003, this field was reserved.
- Starting with release 8.5.003.17, to distinguish an agent from other persons in a contact center, a newly introduced value, Person, is set in the RESOURCE_.RESOURCE_SUBTYPE column for any persons who are not agents. The previously existing value, Agent, is now used in the RESOURCE_.RESOURCE_SUBTYPE column only to identify Agents (that is, the resources for whom the IsAgent flag is set in the Person configuration object). Both subtypes are associated with the Agent resource type that is stored in the RESOURCE_.RESOURCE_TYPE column.

New in Release 8.5.003

- To enhance Tenant metrics to include active multimedia interactions that have not yet been handled, two new columns, ANCHOR_ID and ANCHOR_SDT_KEY, are added to the INTERACTION_FACT table.
 Values in these columns are derived as follows:
 - For interactions that have been completed or handled, Genesys Info Mart populates the value of ANCHOR_ID based on the INTERACTION_RESOURCE_ID of the INTERACTION_RESOURCE_FACT (IRF) record with IRF_ANCHOR = 1. The ANCHOR_SDT_KEY value in this case equals the START_DATE_TIME_KEY of the same IRF record.
 - For active multimedia interactions that have not yet reached a handling resource (that is, are still in mediation), Genesys Info Mart populates the value of ANCHOR_ID based on the MEDIATION_SEGMENT_ID of the MEDIATION_SEGMENT_FACT (MSF) record for the most recent mediation DN. The ANCHOR_SDT_KEY value in this case equals the START_DATE_TIME_KEY of the same MSF record.
- To enable Unicode characters support on Oracle databases, the fields with the varchar data types now use the explicit CHAR character length semantics.
- To accommodate additional custom record fields with high cardinality values, 20 new columns (RECORD_FIELD_41 through RECORD_FIELD_60) of the varchar data type are added to the CONTACT_ATTEMPT_FACT table.
- · A new column, CREATE AUDIT KEY, has been added to the SM MEDIA NEUTRAL STATE FACT table.
- In the INTERACTION_RESOURCE_FACT table, the name of the IRF_ANCHOR_DATE_TIME_KEY column is changed to IRF_ANCHOR_SENT_TS.
- A previously reserved field, LAST_INTERACTION_RESOURCE, in the INTERACTION_RESOURCE_FACT table is now populated for voice interactions.
- New combinations in the TECHNICAL_DESCRIPTOR table are added for multimedia online interactions that are placed into archive queues.
 - Completed/Archived/InConference/Unspecified
 - Completed/Archived/InConference/ConferenceInitiator
 - Completed/Archived/InConference/ConferenceJoined

- Completed/Archived/InitiatedConsult/Unspecified
- Completed/Archived/ReceivedConsult/Unspecified
- Completed/Archived/ReceivedRequest/Unspecified
- Completed/Canceled/InConference/Unspecified
- Completed/Canceled/InConference/ConferenceInitiator
- Completed/Canceled/InConference/ConferenceJoined
- Completed/Canceled/InitiatedConsult/Unspecified
- Completed/Canceled/ReceivedConsult/Unspecified
- Completed/Canceled/ReceivedRequest/Unspecified
- Subsequent to the changes that were originally introduced in release 8.1.402, this release includes additional schema changes to prepare for support of additional interaction flows, such as the Voice Callback feature of Genesys Mobile Services.
 - PUSH DELIVERY CONFIRMED TS field has been added to the CALLBACK FACT table.
 - CUSTOMER_READY_TO_START_IXN_TS field has been added to the CALLBACK_FACT table.
 - DESIRED TIME field in the CALLBACK FACT table has been renamed to DESIRED TIME TS.
 - A constraint, NOT NULL, has been added for the DESIRED TIME TS field (with a default value of 0).

New in Release 8.5.002

- To support reporting on media-neutral agent states, a new fact table, SM_MEDIA_NEUTRAL_STATE_FACT, stores the summarized states for each agent across all media. Population of the table is controlled by a new configuration option, **populate-media-neutral-sm-facts**. Priority of agent states relative to each other is controlled with an existing configuration option, **sm-resource-state-priority**.
- To provide Call Detail Record (CDR) data, a new database view, CDR, has been added to the Info Mart schema. The CDR view is based on the INTERACTION_RESOURCE_FACT table and MEDIA_TYPE, INTERACTION_TYPE, RESOURCE_, TECHNICAL_DESCRIPTOR, and DATE_TIME dimension tables. The DATE_TIME dimension is presented as a new CDR_DATE_TIME view, for purposes of CDR data reporting.

New in Release 8.5.001

- To assist in exporting and archiving data, audit keys (CREATE_AUDIT_KEY and UPDATE_AUDIT_KEY) have been added to user-data fact extension tables:
 - IRF_USER_DATA_CUST_1
 - IRF USER DATA GEN 1
 - IRF USER DATA KEYS
- To improve performance for downstream reporting applications, organization of the user-data fact and dimension tables has been changed to a clustered model (referred to as index-organized in Oracle).
- A new role reason and technical result reason, IntroducedTransfer, identify IRFs for agents involved

in an introduced transfer. For information about when a conference qualifies as an introduced transfer, see the description of the new configuration option, **introduced-transfer-threshold**.

- A new interaction subtype, InternalConferenceInvite, supports simplified, more meaningful reporting on chat conferences or consultations through a queue, by identifying the subordinate interactions that the agent desktop uses to implement the interaction flow.
- Support for reporting on chat consultations affects the population of various IRF metrics. For more information, see IRF details in the section about documentation changes, below.
- Population of thread-related columns in the ANCHOR_FLAGS table is no longer enabled by default. A new
 configuration option, populate-thread-facts, controls whether thread-related metrics will be
 populated. Enabling this functionality might negatively impact Genesys Info Mart performance.
- The initial 8.5.001 release includes schema and configuration changes to prepare Genesys Info Mart to support reporting on interaction flows that involve applications developed with Genesys Designer. In addition, release 8.1.402.07 included schema and configuration changes to prepare Genesys Info Mart to support additional interaction flows, such as the Voice Callback feature of Genesys Mobile Services. The following observable changes in the Info Mart schema support functionality in a future release:
 - New SDR * fact and dimension tables
 - A new CALLBACK_FACT table and new callback dimension tables (CALLBACK_DIM_1, CALLBACK_DIM_2, CALLBACK_DIM_3)
 - User data mapping for additional KVPs

Documentation Updates for Release 8.5.0

The Genesys Info Mart 8.5.0 Reference Manual will include the following additional or changed information, compared with the Genesys Info Mart 8.1 Reference Manual for your RDBMS:

- For Genesys Callback support, descriptions of the following columns will be updated to indicate new, additional values:
 - INTERACTION TYPE.INTERACTION SUBTYPE (OUTBOUNDCALLBACK)
 - TECHNICAL DESCRIPTOR.TECHNICAL RESULTS (DEFERRED and INCOMPLETE)
 - TECHNICAL DESCRIPTOR.RESULT REASON (CALLBACKACCEPTED)
- Description of a new column, USERDATA_FLAG, will be added to the MSF table. The column indicates that user data is attached to the MSF record. This flag facilitates an unambiguous join between the MSF and fact extension tables to retrieve correct user data that is attached during mediation.
- A new fact table, SM_MEDIA_NEUTRAL_STATE_FACT, will be added to Chapter 3, "Info Mart Tables," and to diagrams in Chapter 2, "Subject Areas," to support reporting on media-neutral agent states.
- The new views, CDR and CDR_DATE_TIME, will be added to Chapter 4, "Genesys Info Mart Views," and appropriate sections in other chapters, to describe the data available for Call Detail Record (CDR) reporting.
- The new user-data propagation rule, IRF_INITIAL, will be added to the list of valid values for the PROPAGATION_RULE column in the CTL_UD_TO_UDE_MAPPING control table.
- · ANCHOR FLAGS table:
 - Description of a new flag, CUSTOMER_LEFT_FIRST, will be added. The flag indicates which party ended a chat session.

- The value in the following columns will always be 0 unless **populate-thread-facts** = true:
 - FIRST_ENGAGE_FOR_AGENT_THRD
 - FIRST REPLY FOR AGENT THRD
 - FIRST_ENGAGE_THRD
- A note will be added to the MEDIATION_SEGMENT_FACT (MSF) table description that, starting with release 8.5.003, Genesys Info Mart populates an MSF record for the starting Interaction Queue of an Inbound Interaction, even if **populate-mm-ixnqueue-facts** is configured to **false**.
- INTERACTION_RESOURCE_FACT (IRF) table:
 - Descriptions of two new columns, FOCUS_TIME_COUNT and FOCUS_TIME_DURATION, will be
 added. These columns enable reporting on the time that a particular interaction has been in
 focus (that is, actively being processed) on the agent desktop. If data regarding agent's focus
 time is provided by the agent desktop for this particular interaction, the count is increased in
 the FOCUS_TIME_COUNT column; otherwise, the value is 0. FOCUS_TIME_DURATION indicates
 the total time that the agent spent actively processing the interaction, as reported by the agent
 desktop.
 - Description of two new columns, ASM_COUNT and ASM_ENGAGE_DURATION, will be added. These columns enable reporting on the time that the engaged agent is waiting to be connected to the customer (ASM engage duration) separately from regular talk time. The columns are populated only in Outbound VoIP environments, with Outbound Contact campaigns running in an ASM dialing mode, if the new configuration option, *No results*, is set to true.
 - The ANCHOR_FLAGS_KEY column description will be updated to account for the role this column now plays in indicating which party ended a chat session.
 - Clarification will be added that in release 8.5.004, the name of the IRF_ANCHOR_SENT_TS column has changed to IRF_ANCHOR_TS. The purpose of the column has been expanded. For chat interactions, the column now stores the time when the customer left the chat, or the time when the agent stopped the chat session, if data about the party that ended a chat session is available from Interaction Concentrator.
 - Clarification will be added that in release 8.5.003, the name of the IRF_ANCHOR_DATE_TIME_KEY column has changed to IRF_ANCHOR_SENT_TS. For offline multimedia interactions, this field is now populated with the time when the first response left the contact center. This field is populated only if IRF.IRF_ANCHOR has a value of 2. This field is set to NULL for all other IRFs that are associated with the same interaction.
 - The description of a previously reserved column, LAST_INTERACTION_RESOURCE, will be updated. The column is supported for voice interactions in release 8.5.003 and is supported for all media types starting with release 8.5.004. This field is set to 1 for a single IRF out of all IRF records that are associated with a given interaction, to indicate the last resource to enter the interaction. This field is set to 0 for all other IRFs that are associated with the same interaction.
 - A newly introduced value, Person, will be added to the list of values for the RESOURCE .RESOURCE SUBTYPE column.
 - CONS_INIT_TALK_COUNT, CONS_RCV_RING_COUNT, CONS_RCV_RING_DURATION, CONS_RCV_TALK_COUNT and CONS_RCV_TALK_DURATION now also apply to chat consultations.
 - The CUSTOMER_*_COUNT and CUSTOMER_*_DURATION metrics that specifically exclude voice and e-mail consultations (for example, CUSTOMER_RING_COUNT) also exclude chat consultations.
 - A note will be added to CONS_INIT_TALK_DURATION to confirm that, even if CONS_INIT_TALK_COUNT is nonzero, CONS_INIT_TALK_DURATION does not apply to chat consultations to avoid double-counting, because the agent who initiated the consultation continued to be active in the chat with the customer for the whole time.

- INTERACTION_TYPE table: InternalConferenceInvite (and INTERNALCONFERENCEINVITE) will be added to the INTERACTION SUBTYPE (and INTERACTION SUBTYPE CODE) columns.
- IRF_USER_DATA_CUST_1, IRF_USER_DATA_GEN_1, and IRF_USER_DATA_KEYS tables: CREATE_AUDIT_KEY and UPDATE_AUDIT_KEY columns will be added.
- TECHNICAL_DESCRIPTOR table: IntroducedTransfer (and INTRODUCEDTRANSFER) will be added to the list of possible values in the RESULT_REASON (and RESULT_REASON_CODE) and ROLE_REASON (and ROLE_REASON_CODE) columns.
- In Chapter 7 ("Info Mart Partitioning"), the "Partitioned GIDB Fact Tables" section will note that two
 options introduced in release 8.1.402.07, partitioning-interval-size-gidb-mm and partitioninginterval-size-gidb-ocs, enable you to tailor partition sizes to suit the characteristics of your
 deployment, to improve performance.